



A Contaminated, Abandoned Gas Station Finds New Life in the Sale of Cutting-Edge Biofuels



SeQuential Biofuels' new station, with photovoltaic arrays that gather solar energy.

Lane County, Oregon

Any time that a brownfield is cleaned up and reused, it is a good thing—a change that usually benefits the environment, the redeveloper, and the surrounding community. For brownfields assessed and cleaned up through EPA grants, sustainability in reuse plans is an essential part of a project. Better still is when a once-contaminated brownfield is reused to promote cutting-edge technology with the potential to reduce pollutants on a global scale, and at the forefront of efforts to reduce fossil fuel dependency. Such is the case of a brownfield in Lane County, Oregon, that had sat idle for nearly 14 years.

Located along McVay Highway in the City of Eugene, the 0.6-acre site seemed destined to remain unused, an eyesore to passing drivers and a hazard to the community. From 1986 through 1991, the site had operated as a gas station—an activity that had gradually contaminated soil and ground water on the property and beyond. The extent of this contamination from leaky underground storage tank (UST) systems was discovered in 1991, when utility excavation work along McVay Highway uncovered petroleum that had migrated from the property.

In response to the state's request to clean up the property, the station's owners ceased operations and declared bankruptcy. Another company purchased the site in 1996, but was eventually fined by the state for not following through with a promised cleanup. The company hired a third firm that removed the property's five underground storage tanks and installed ground water monitoring wells. The firm was not paid for this work, and was awarded the property in a legal settlement. However, these new owners in turn failed to pay property taxes, and the site's ownership was transferred to Lane County through foreclosure in 2004.

Lane County had inherited a property rife with problems. In addition to its remaining contamination issues, the site had been used for drug activity and illegal dumping since the gas station's closure more than a decade earlier. Hundreds of tires and piles of random debris now covered the site.

But it would not be long before the property's outlook improved dramatically. Even before the county took ownership of the site, SeQuential Biofuels LLC, an Oregon-based biofuel marketing and distribution company, expressed interest in purchasing and redeveloping the site. The company had already found success in other areas of the state through distribution of their biofuels at operating stations. Bioethanol is a blend of 15 percent petroleum gasoline and 85 percent alternative fuels such as "E85ethanol," which is derived from renewable, natural products such as corn and sugar cane and produces lower emissions.

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JUST THE FACTS:

- The 0.6-acre site had operated as a gas station for 15 years—an activity that had gradually contaminated soil and ground water on the property and beyond.
- After Lane County took ownership through foreclosure in 2004, SeQuential Biofuels expressed interest in redeveloping the property as a biofuel service station.
- The site was assessed and cleaned through efforts of multiple partners including Lane County, the Oregon DEQ, EPA, and SeQuential Biofuels.
- The Oregon Brownfields Awards described the project as "...a pivotal representation of what tomorrow's brownfields will encompass... and the challenges we face as society progresses towards alternative energy options."

This project has created the first station of its kind in the country—selling all of the company's biofuel blends and featuring solar panels that provide as much as half the station's electricity. The main building includes a natural-foods convenience store with an "eco-roof" that uses plants and soil to keep the store cool during summers. The property also features "bioswales" in which plants filter rainwater before it runs offsite.

In March 2005, the property became one of six sites assessed through an EPA Brownfields Site-Specific Assessment grant awarded to the Oregon Department of Environmental Quality (DEQ). With areas of contamination defined, the County removed more than 400 discarded tires, 15 drums of waste material, and hundreds of items of illegal drug paraphernalia. A further cleanup effort was funded by a \$197,520 EPA Brownfields Cleanup grant awarded to Lane County in May 2005; and \$50,000 from SeQuential Biofuels, through a loan from the Oregon Economic and Community Development Department. More than 620 cubic yards of contaminated soil were removed and a deeper aquifer ground water remediation system was installed, along with ground water monitoring wells to ensure the cleanup's effectiveness. SeQuential Biofuels then leased the property from Lane County and began redevelopment in the Spring of 2006, under an agreement that ownership would be transferred to SeQuential at the end of the remediation monitoring phase (likely during Summer 2007). "The Oregon DEQ deserves a huge amount of credit for this project," explains Brooks Stanfield, Brownfields Grant Manager for EPA Region 10 (covering Oregon, Washington, and Idaho). "DEQ's project managers were the ones that dealt directly with contractors, they were very involved in balancing a tight project budget, and they had to dovetail site work with an aggressive redevelopment schedule... they were heroic in getting this project completed."

The result of redevelopment, completed in August 2006, is the first station of its kind in the country—selling every SeQuential biofuel (including ethanol and biodiesel blends), and featuring photovoltaic panels above the pump stations that provide as much as half the station's electricity needs through solar power. The main building includes a convenience store that carries natural foods and drinks, most of which are produced by regional companies. A seasonal, fresh produce stand at the station is stocked by local farmers. The

convenience store has an "eco-roof" with soil and thousands of plants that keep the store cool during the summer. The property also features stormwater retention "bioswales" in which plants filter rainwater before it runs off the site.

The new facility has become SeQuential Biofuels' base of operations in Lane County, and is staffed by 15 part-time and four full-time employees. Cleanup of the site removed any community fears of migrating ground water contamination, in addition to eliminating a long-standing roadside eyesore. The project is seen as a win-win scenario for all of the partners involved. As said by Jeff Turk, Property Management Officer with Lane County, "This is a case where a site gets cleaned up, and the potential contamination issues are taken care of, and the site goes back to being productive. It now has a business on it where taxes are generated, and it's a good situation overall."

The project is already serving as a model for a regional "Brownfields to Biofuels" effort that EPA hopes will produce similar results on other idle properties in the Northwest. As described by Brooks Stanfield, "The impact of this project reaches beyond this one site and community... we're now looking at how this idea can be expanded and applied in other states."

In March 2007, the site's cleanup and redevelopment was recognized by the Oregon Brownfields Awards, as one of three winning projects. The Awards described the project as "...a pivotal representation of what tomorrow's brownfields will encompass, and the challenges we face as society progresses towards alternative energy options." Cleaning up an idle, abandoned gas station site and placing it on the front lines of the renewable energy revolution is indeed an exemplary reuse of a brownfield—one that exceeds the already high standard of sustainable redevelopment.

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Visit the EPA Brownfields Website at:
<http://www.epa.gov/brownfields/>



The former gas station along McVay Highway, prior to cleanup.